

Please amend the Application as follows.

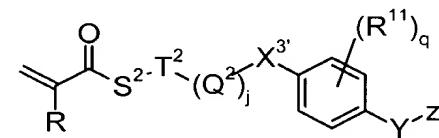
**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings of claims in the application.

Claim 1. (Currently Amended) An optical recording material for at least one of binary, multibit and volume data storage, comprising:

- (a) at least one dyestuff selected from polymeric azo dyestuffs, said dyestuff changing its spatial arrangement upon irradiation with polarized electromagnetic radiation; and
- (b) optionally a polymer comprising at least one residue of a monomer grouping having form anisotropy[[,]] represented by the following formula (IV),

(IV)



wherein,

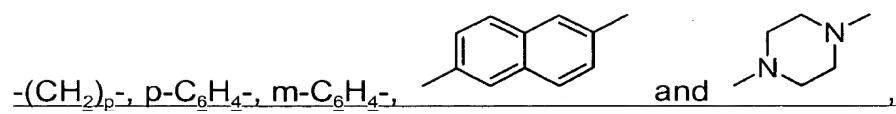
R is hydrogen or methyl,

S<sup>2</sup> is a divalent linking group selected from the group consisting of -O-, -S- or -NR<sup>9</sup>-,

T<sup>2</sup> is a divalent -(CH<sub>2</sub>)<sub>p</sub>- group that is optionally interrupted by a divalent linking group selected from the group consisting of -O-, -NR<sup>9</sup>- and -OSiR<sup>10</sup><sub>2</sub>O-,

p being an integer from 2 to 12,

Q<sup>2</sup> is a divalent linking group selected from the group consisting of -O-, -S-, -(N-R<sup>5</sup>)-, -C(R<sup>6</sup>R<sup>7</sup>)-, -(C=O)-, -(CO-O)-, -(CO-NR<sup>5</sup>)-, -(SO<sub>2</sub>)-, -(SO<sub>2</sub>-O)-, -(SO<sub>2</sub>-NR<sup>5</sup>)-, -(C=NR<sup>8</sup>)-, -(CNR<sup>8</sup>-NR<sup>5</sup>)-,



j is an integer from 0 to 4, provided that when j is greater than 1,

Q<sup>2</sup> is selected independently for each j,

X<sup>3</sup> is a divalent linking group selected from the group consisting of

-O-, -S-, -(N-R<sup>5</sup>)-, -C(R<sup>6</sup>R<sup>7</sup>)-, -(C=O)-, -(CO-O)-, -(CO-NR<sup>5</sup>)-,  
-(SO<sub>2</sub>)-, -(SO<sub>2</sub>-O)-, -(SO<sub>2</sub>-NR<sup>5</sup>)-, -(C=NR<sup>8</sup>)- and -(CNR<sup>8</sup>-NR<sup>5</sup>)-,

R<sup>11</sup> is selected from the group consisting of hydrogen, halogen,

cyano, nitro, C<sub>1</sub>- to C<sub>20</sub>-alkyl, C<sub>1</sub>- to C<sub>20</sub>-alkoxy, phenoxy,

C<sub>3</sub>- to C<sub>10</sub>-cycloalkyl, C<sub>2</sub>- to C<sub>20</sub>-alkenyl or C<sub>6</sub>- to C<sub>10</sub>-aryl,

C<sub>1</sub>- to C<sub>20</sub>-alkyl-(C=O)-, C<sub>6</sub>- to C<sub>10</sub>-aryl-(C=O)-,

C<sub>1</sub>- to C<sub>20</sub>-alkyl-(SO<sub>2</sub>)-, C<sub>1</sub>- to C<sub>20</sub>-alkyl-(C=O)-O-,

C<sub>1</sub>- to C<sub>20</sub>-alkyl-(C=O)-NH-, C<sub>6</sub>- to C<sub>10</sub>-aryl-(C=O)-NH-,

C<sub>1</sub>- to C<sub>20</sub>-alkyl-O-(C=O)-, C<sub>1</sub>- to C<sub>20</sub>-alkyl-NH-(C=O)- and

C<sub>6</sub>- to C<sub>10</sub>-aryl-NH-(C=O)-,

q is an integer from 0 to 4, provided that when q is

greater than 1, R<sup>11</sup> is selected independently for each q,

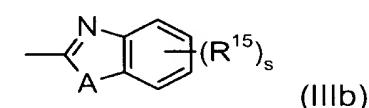
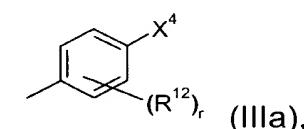
Y is a divalent linking group selected from the group consisting of

-COO-, -OCO-, -CONH-, -NHCO-, -CON(CH<sub>3</sub>)-, -N(CH<sub>3</sub>)CO-,

-O-, -NH- and -N(CH<sub>3</sub>)-, and

Z is a member selected from the group consisting of

formulas (IIIa) and (IIIb)



wherein,

X<sup>4</sup> is X<sup>4</sup>-R<sup>13</sup>,

X<sup>4</sup> is a divalent linking group selected from the group consisting of -O-, -S-, -(N-R<sup>5</sup>)-,

$-C(R^6R^7)-$ ,  $-(C=O)-$ ,  $-(CO-O)-$ ,  $-(CO-NR^5)-$ ,  
 $-(SO_2)-$ ,  $-(SO_2-O)-$ ,  $-(SO_2-NR^5)-$ ,  $-(C=NR^8)-$  and  $-(CNR^8-NR^5)-$ , and

$R^{13}$  is selected from the group consisting of hydrogen,  
 $C_1$ - to  $C_{20}$ -alkyl,  $C_3$ - to  $C_{10}$ -cycloalkyl,  
 $C_2$ - to  $C_{20}$ -alkenyl,  $C_6$ - to  $C_{10}$ -aryl,  
 $C_1$ - to  $C_{20}$ -alkyl-( $C=O$ )-,  
 $C_3$ - to  $C_{10}$ -cycloalkyl-( $C=O$ )-,  
 $C_2$ - to  $C_{20}$ -alkenyl-( $C=O$ )-,  $C_6$ - to  $C_{10}$ -aryl-( $C=O$ )-,  
 $C_1$ - to  $C_{20}$ -alkyl-( $SO_2$ )-,  $C_3$ - to  $C_{10}$ -cycloalkyl-( $SO_2$ )-,  
 $C_2$ - to  $C_{20}$ -alkenyl-( $SO_2$ )- and  
 $C_6$ - to  $C_{10}$ -aryl-( $SO_2$ )-,

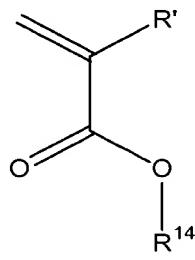
$R^{12}$  is selected from the group consisting of hydrogen,  
halogen, cyano, nitro,  $C_1$ - to  $C_{20}$ -alkyl,  $C_1$ - to  $C_{20}$ -alkoxy,  
phenoxy,  $C_3$ - to  $C_{10}$ -cycloalkyl,  $C_2$ - to  $C_{20}$ -alkenyl,  
 $C_6$ - to  $C_{10}$ -aryl,  $C_1$ - to  $C_{20}$ -alkyl-( $C=O$ )-,  
 $C_6$ - to  $C_{10}$ -aryl-( $C=O$ )-,  $C_1$ - to  $C_{20}$ -alkyl-( $SO_2$ )-,  
 $C_1$ - to  $C_{20}$ -alkyl-( $C=O$ )-O-,  $C_1$ - to  $C_{20}$ -alkyl-( $C=O$ )-NH-,  
 $C_6$ - to  $C_{10}$ -aryl-( $C=O$ )-NH-,  $C_1$ - to  $C_{20}$ -alkyl-O-( $C=O$ )-,  
 $C_1$ - to  $C_{20}$ -alkyl-NH-( $C=O$ )- and  
 $C_6$ - to  $C_{10}$ -aryl-NH-( $C=O$ )-,

$r$  is an integer from 0 to 4, provided that when  $r$  is  
greater than 1,  $R^{12}$  is selected independently for each  $r$ ,

$A$  is selected from the group consisting of O, S and  
 $N-C_1$ - to  $C_4$ -alkyl, and

$R^{15}$  is selected from the group consisting of hydrogen,  
halogen, cyano, nitro,  $C_1$ - to  $C_{20}$ -alkyl,  $C_1$ - to  $C_{20}$ -alkoxy,  
phenoxy,  $C_3$ - to  $C_{10}$ -cycloalkyl,  $C_2$ - to  $C_{20}$ -alkenyl,  
 $C_6$ - to  $C_{10}$ -aryl,  $C_1$ - to  $C_{20}$ -alkyl-( $C=O$ )-,  
 $C_6$ - to  $C_{10}$ -aryl-( $C=O$ )-,  $C_1$ - to  $C_{20}$ -alkyl-( $SO_2$ )-,  
 $C_1$ - to  $C_{20}$ -alkyl-( $C=O$ )-O-,  $C_1$ - to  $C_{20}$ -alkyl-( $C=O$ )-NH-,

C<sub>6</sub>- to C<sub>10</sub>-aryl-(C=O)-NH-, C<sub>1</sub>- to C<sub>20</sub>-alkyl-O-(C=O)-,  
C<sub>1</sub>- to C<sub>20</sub>-alkyl-NH-(C=O)- and  
C<sub>6</sub>- to C<sub>10</sub>-aryl-NH-(C=O)-,  
s is an integer from 0 to 4, provided that when s is  
greater than 1, R<sup>15</sup> is selected independently for each s,  
said polymer (b) optionally further comprising monomer residues  
represented by the following formula (V),



wherein,

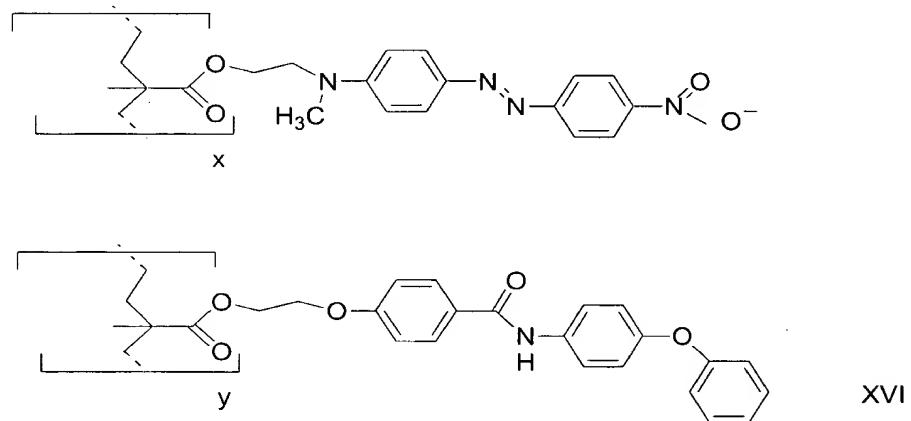
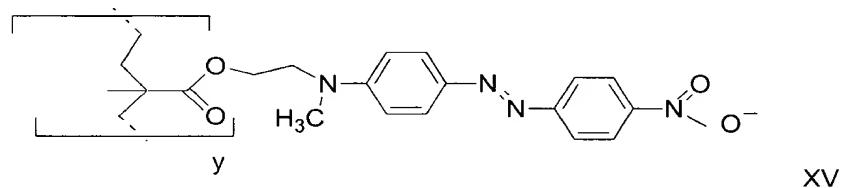
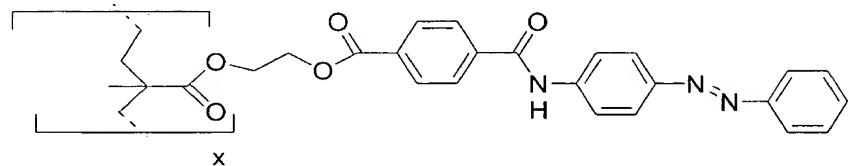
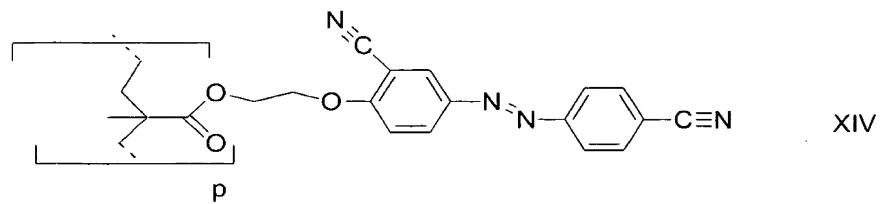
R' is hydrogen or methyl, and

R<sup>14</sup> is a linear or branched C<sub>1</sub>- to C<sub>20</sub>-alkyl group,

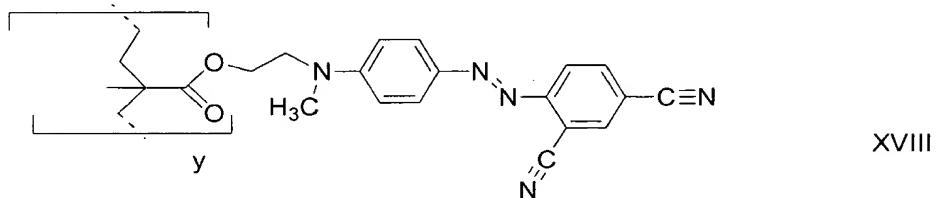
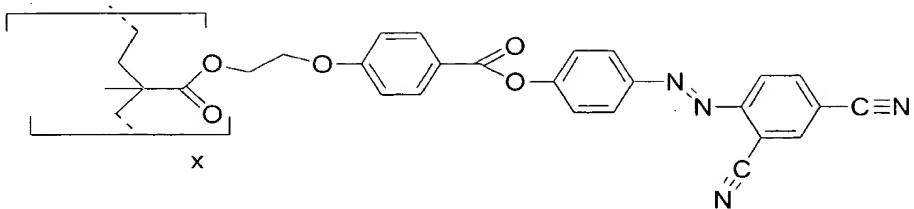
wherein,

- (i) the absorption maximum of the dyestuff is at least one of, at least 30 nm less than 400 nm and at least 30 nm greater than 400 nm,
- (ii) at 400 nm the dyestuff reaches an optical density of not more than 60% of its absorption maximum,
- (iii) said optical recording material has the capacity for being rewritten on by changing the state of polarization of actinic light, an intensity of at least 80% of the original value being achieved after a deletion/rewriting cycle, and
- (iv) wherein at 400 nm, under identical conditions, an optical writing operation upon said optical recording material proceeds no more slowly than at 500 nm, and birefringence values induced during said optical writing operation do not differ from those birefringence values induced at 500 nm by more than 10%, further wherein said polymeric azo dyestuff is selected from at least one polymer

represented by formulas XIV, XV, XVI and XVIII,



and



p being between 10 and 1,000, and the molar ratio of x : y being between 10:90 and 90:10, and

further wherein said optical recording material has a layer thickness of at least 1 mm.

Claim 2. (Currently Amended) The optical recording material of Claim 1 wherein the absorption maximum of the dyestuff is less than 370 nm.

Claim 3. (Currently Amended) The optical recording material of Claim 1 wherein the absorption maximum of the dyestuff is greater than 450 nm.

Claim 4. (Cancelled)

Claim 5. (Cancelled)

Claim 6. (Currently Amended) The optical recording material of Claim 1 wherein said optical recording material is optically written upon using electromagnetic radiation that is light in a laser wavelength range of between 380 to 420 nm.

Claims 7. – 10. (Cancelled)

Claim 11. (Currently Amended) A storage system comprising the optical recording material of Claim 1.

Claim 12. (Cancelled)

Claim 13. (Previously Presented) The storage system of Claim 11 wherein it also additionally comprises a reflection layer.

Claim 14. (Previously Presented) A process for the production of the storage system of Claim 11 wherein said process comprises applying the storage medium by spin-coating.

Claim 15. (Cancelled)

Claim 16. (Cancelled)

Claim 17. (Cancelled)

Claim 18. (Cancelled)

Claim 19. (New) An optical recording material for at least one of binary, multibit and volume data storage, comprising:

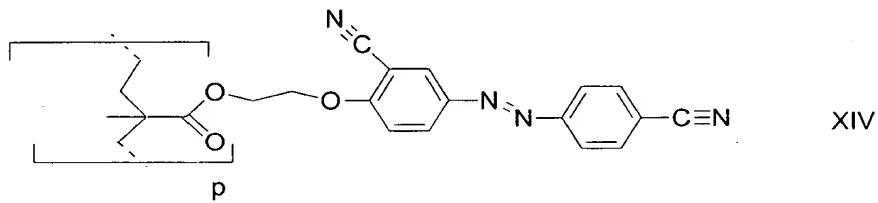
(a) at least one dyestuff selected from polymeric azo dyestuffs, said dyestuff changing its spatial arrangement upon irradiation with polarized electromagnetic radiation; and

(b) optionally at least one grouping having form anisotropy,

wherein,

(i) the absorption maximum of the dyestuff is at least one of, at least 30 nm less than 400 nm and at least 30 nm greater than 400 nm,

- (ii) at 400 nm the dyestuff reaches an optical density of not more than 60% of its absorption maximum,
- (iii) said optical recording material has the capacity for being rewritten on by changing the state of polarization of actinic light, an intensity of at least 80% of the original value being achieved after a deletion/rewriting cycle, and
- (iv) wherein at 400 nm, under identical conditions, an optical writing operation upon said optical recording material proceeds no more slowly than at 500 nm, and birefringence values induced during said optical writing operation do not differ from those birefringence values induced at 500 nm by more than 10%, further wherein said polymeric azo dyestuff is a polymer represented by the following formula XIV,



p being between 10 and 1,000.

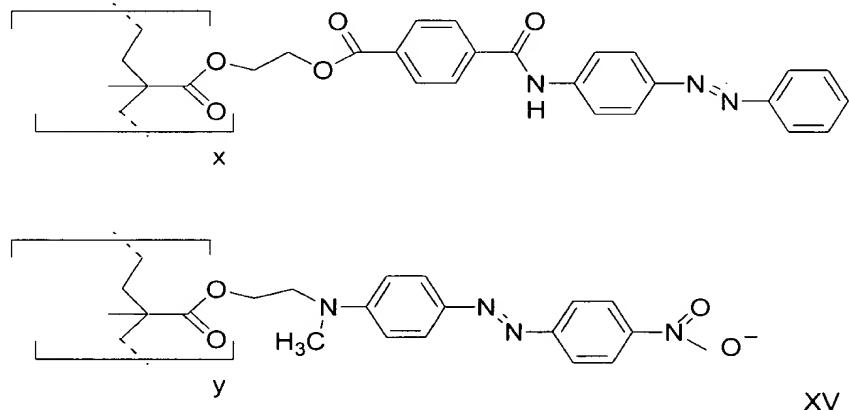
Claim 20. (New) An optical recording material for at least one of binary, multibit and volume data storage, comprising:

- (a) at least one dyestuff selected from polymeric azo dyestuffs, said dyestuff changing its spatial arrangement upon irradiation with polarized electromagnetic radiation; and
- (b) optionally at least one grouping having form anisotropy,

wherein,

- (i) the absorption maximum of the dyestuff is at least one of, at least 30 nm less than 400 nm and at least 30 nm greater than 400 nm,
- (ii) at 400 nm the dyestuff reaches an optical density of not more than 60% of its absorption maximum,

- (iii) said optical recording material has the capacity for being rewritten on by changing the state of polarization of actinic light, an intensity of at least 80% of the original value being achieved after a deletion/rewriting cycle, and
- (iv) wherein at 400 nm, under identical conditions, an optical writing operation upon said optical recording material proceeds no more slowly than at 500 nm, and birefringence values induced during said optical writing operation do not differ from those birefringence values induced at 500 nm by more than 10%, further wherein said polymeric azo dyestuff is a polymer represented by the following formula XV,



wherein the molar ratio of **x** : **y** is between 10:90 and 90:10.

**Claim 21. (New)** An optical recording material for at least one of binary, multibit and volume data storage, comprising:

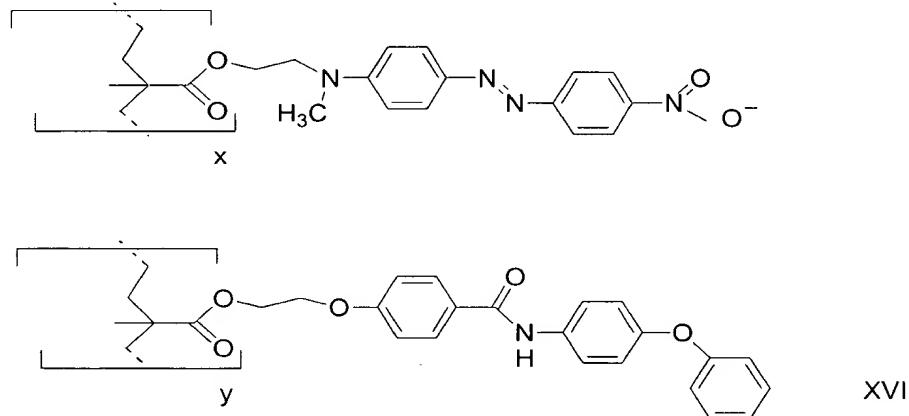
- (a) at least one dyestuff selected from polymeric azo dyestuffs, said dyestuff changing its spatial arrangement upon irradiation with polarized electromagnetic radiation; and
- (b) optionally at least one grouping having form anisotropy,

wherein,

- (i) the absorption maximum of the dyestuff is at least one of, at least 30 nm less

than 400 nm and at least 30 nm greater than 400 nm,

- (ii) at 400 nm the dyestuff reaches an optical density of not more than 60% of its absorption maximum,
- (iii) said optical recording material has the capacity for being rewritten on by changing the state of polarization of actinic light, an intensity of at least 80% of the original value being achieved after a deletion/rewriting cycle, and
- (iv) wherein at 400 nm, under identical conditions, an optical writing operation upon said optical recording material proceeds no more slowly than at 500 nm, and birefringence values induced during said optical writing operation do not differ from those birefringence values induced at 500 nm by more than 10%, further wherein said polymeric azo dyestuff is a polymer represented by the following formula XVI,



wherein the molar ratio of x : y is between 10:90 and 90:10.